

## [Abstract](#)

[Indian J Psychol Med](#). 2014 Jan;36(1):54-7. doi: 10.4103/0253-7176.127251.

# **Comparison of two assessment tools that measure insomnia: the insomnia severity index and polysomnography.**

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### **Abstract**

#### **BACKGROUND:**

Insomnia is a common sleep disorder, characterized by difficulties in sleep initiation, sleep maintenance or early morning awakening. Although polysomnography (PSG) is a standard method in the evaluation of sleep disorders, it is not recommended for routine use in the clinical assessment of insomnia. Instead, standard questionnaires could be used in the primary evaluation of insomnia.

#### **OBJECTIVE:**

The main object of this study was to compare the type and severity of patients' subjective complaints of insomnia gathered from insomnia severity index (ISI) questionnaire with the result of their polysomnographic evaluation.

#### **MATERIALS AND METHODS:**

In this cross-sectional study conducted during 2010-2011 in Iran, all patients in one clinic with sleep disorders were evaluated. The study consisted of self-administered questionnaires completed by participants to provide information on demographic characteristics and ISI questionnaire. After completing the questionnaire, all the participants underwent standard overnight PSG.

#### **RESULTS:**

Subjects were 151 patients ( $47.2 \pm 10.8$  years old). The average ISS was  $6.1 \pm 4$ . There was a significant relationship between the subjective complaint of difficulty in sleep initiation and sleep onset latency in PSG ( $r = 0.5$ ,  $P < 0.001$ ). Furthermore, there was a correlation between the subjective complaint of difficulty in sleep maintenance and number of awakening in PSG ( $r = 0.19$ ,  $P = 0.01$ ). A low patients' satisfaction from their sleep was associated with lower total sleep time ( $r = -0.2$ ,  $P = 0.02$ ) and a lower percentage of rapid eye movement (REM) sleep in their PSG study ( $r = -0.25$ ,  $P = 0.002$ ). No relation was found between patients' satisfaction and sleep efficiency measured with PSG ( $r = -0.04$ ,  $P = 0.6$ ).

#### **CONCLUSIONS:**

Our findings suggest that objective insomnia, measured with ISI, is related with PSG variables and ISI could be a useful tool to quantify perceived insomnia severity. Further studies are needed to determine the sensitivity and specificity of this questionnaire.

#### **KEYWORDS:**

Insomnia; insomnia severity index; polysomnography

PMID: 24701011